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Release of Barley Mildew Spores - Effect of High Temperatures

L P Smith

Using records of daily spore catch at Wellesbourne in 1970, the records for the period May 13 - June 30 were analysed with respect to:-

(a) Daily maximum temperature on day (0900-0900) of catch.
(b) Sum of maxima of day and previous day.
(c) Sum of maxima as in (b) plus intervening minimum.

Results

(a) Range of Maxima	Mean Catch	(b) Range of Sum	Mean Catch	(c) Range of Sum	Mean Catch
56-61	184	115-25	117	155-65	19
58-63	185	120-30	233	160-70	103
60-65	181	125-35	215	165-75	148
62-67	275	130-40	330	170-80	281
64-69	360	135-45	465	175-85	310
66-71	566	140-50	870	180-90	370
68-73	689	145-55	1298	185-95	771
70-75	935	150-60	1061	190-200	1098
72-77	1205	155-65	356	195-205	1264
74-79	1210	160-170	563	200-10	1048
76-81	1020			205-15	185
78-83	534			210-20	502
80-85	613			215-25	603
				220-30	780

These figures imply optimum temperature criteria

(a) Day maximum and 76°F
(b) Sum of successive maxima about 150°
(c) Sum of maxima plus minima about 200°

Any comments or suggestions on this paper should be referred to the author

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Bracknell

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